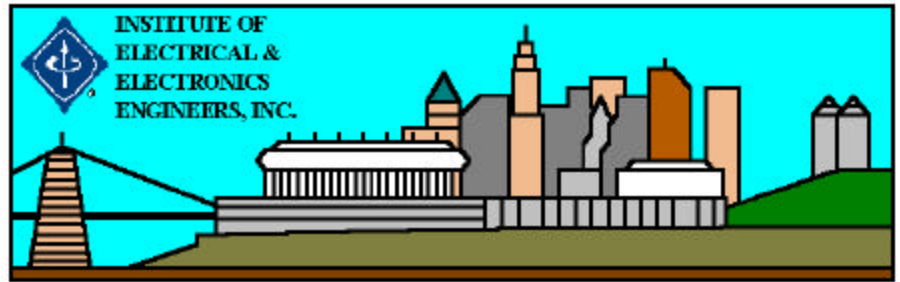


**IEEE CINCINNATI
SECTION
NEWSLETTER
FEBRUARY 2002**



FEBRUARY MEETINGS

NOTE: There will be two meetings this month which may be of interest to you. On Wednesday, February 20, we will have another presentation by Harris Corporation and a tour of their Broadcast Communications Headquarters in Mason, OH. This is a repeat of the presentation and tour we had in May 2001.

The other meeting is the 67TH ANNUAL RECOGNITION and AWARDS PROGRAM given by the ENGINEERS AND SCIENTISTS SERVING GREATER CINCINNATI, February 21, 2002 at RSVP at Wards Corner. Information on both events follows:

HARRIS TV PRESENTATION & TOUR

DATE: Wednesday, February 20, 2002

PLACE: Harris Broadcast Communications Headquarters
4393 Digital Way
Mason, Ohio (see page 4 for directions and map)

TIME:

7:00 PM	Arrival at Harris
7:30 PM	Overview of Harris Corporation and Broadcast Communications Division
7:50 PM	The conversion from analog to digital television in the United States
8:15 PM	Demonstration of High Definition, Digital Television
8:30 PM	Tour of Harris Engineering Laboratories
9:00 PM	Refreshments

Please call the Cincinnati Section Voice Mailbox at 513-629-9380, by Noon, Monday, February 18, 2002 if you plan to attend. Please leave your Name, IEEE Member Number, and a daytime telephone number.

Harris Corporation is an international communications equipment company focused on providing product, system, and service solutions that take its customers to the next level. The company provides wireless, broadcast, government, and network support products and systems for global communications markets. Harris has set the pace for television's transition from analog to digital technology. The RF Test Bed that they developed for the Advanced

Television Test Center in 1990 enabled all digital television systems proposed for the United States to be equitably evaluated. Harris also is a leader in technology for the European-standard Digital Video Broadcasting (DVB-T) market.

DIRECTIONS: See Page 4 for directions and map.

As a prelude to a celebration of
ENGINEERS WEEK,

ENGINEERS AND SCIENTISTS SERVING GREATER CINCINNATI
invites you to attend the
67TH ANNUAL RECOGNITION and AWARDS PROGRAM
to be held on Thursday February 21, 2002 at

RSVP at Wards Corner
453 Wards Corner Road
Loveland, Ohio 45140
Phone: 513-965-0392

Time: Registration begins at 6pm.
Social hour until 7pm with dinner served shortly after
8:00 p.m. - Speaker (Arnie Rosenberg)

Cost: \$35/person to be paid on Feb. 21st at registration

This dinner is a joint meeting with the American Society of Civil Engineers (ASCE), the Ohio Society of Professional Engineers, and the Northern Kentucky Chapter of the Kentucky Society of Professional Engineers (NKSPE). In addition, many other technical and professional societies will be represented by those in attendance. Come and share experiences with other professionals, make new friends, enjoy good food and meet this year's award recipients.

This year's award winners are as follows:

- **Calvin Charles Bopp** – ESC's Herman Schneider Award for Distinguished Engineering, nominated by the Retired Engineers and Scientists of Cincinnati
- **Richard Pohlman** – ESC's Professional Accomplishment Award, nominated by the American Water Works Association.
- **Biju George** – ESC's Professional Accomplishment Award, nominated by the Metropolitan Sewer District.
- **James Swanson** – ESC's Professional Accomplishment Award, nominated by the American Society of Civil Engineers.
- **Clifford Schrive** – ESC's Young Engineer of the Year Award, nominated by the American

Water Works Association.

- **Jeffrey Swertfeger** – ESC's Young Scientist of the Year Award, nominated by the American Water Works Association.
- **Robert Delcamp** – RESC's Lifetime Achievement Award

Additionally, the University of Cincinnati will be presenting Herman Schneider Medals to exemplary co-op students.

Additional Information:

Directions: Located in Cincinnati's northeast business corridor at Exit 54 of I-275. If approaching Exit 54 on I-275 East, take Exit 54, turn left onto Wards Corner Road and go about ¼ mile. RSVP will be on your left. If approaching Exit 54 on I-275 West, take Exit 54, turn right onto Wards Corner Road and go about 1/10 mile. RSVP will be on your left. They have a lighted sign but it is located down low so you will have to keep an eye out for it.

Menu choices include: Chicken Picatta in cream sauce, Halibut Nantucket stuffed with crab, or a Vegetarian dinner. There will also be a tossed salad, new potatoes, steamed vegetable medley and rum cake with fruit. Drinks included are tea, coffee, and water. A cash bar will also be available all evening.

Reservations: To make reservations, call Ann Rabe at 513/287-3258. You will need to provide names along with their menu selection (chicken, fish, vegetarian). **Please make reservations by February 13, 2002.** If a reservation is cancelled prior to the February 13th deadline, no charge will be incurred. However, if cancellation is received after the 13th we will have to ask for full payment.

Speaker: Our guest speaker will be Arnie Rosenberg. He will talk about the new home of the Cincinnati Reds, the Great American Ballpark. Mr. Rosenberg is the project manager for Dan Pinger Associates, the public relations firm representing the project. He should have some interesting insights on this soon to be Cincinnati landmark.

Questions: If you have questions or need additional information, feel free to contact Ann at the phone number listed above.

TO SUBSCRIBE TO THE ELECTRONIC NEWSLETTER

This newsletter is only available via e-mail or the Section's web page at <http://ieee.cincinnati.fuse.net/> with the exception of new Section members (one issue only) or members who have specifically requested a copy be delivered through the U. S. Mail.

If you are a new Section member and would like to get this newsletter electronically, please contact Bob Morrison (Editor) at **513-287-3697** or by e-mail at j.r.morrison@ieee.org. Provide your name and member number. In case there are questions, please include a daytime telephone number as well.

If you would like the "Snail Mail" version, you must contact Bob Morrison via the above means or call the Section's voice mail at **513-629-9380**.

**Directions from Cincinnati/Northern
Kentucky Airport (CVG):**

I-275 E to I-71 N (8 miles)

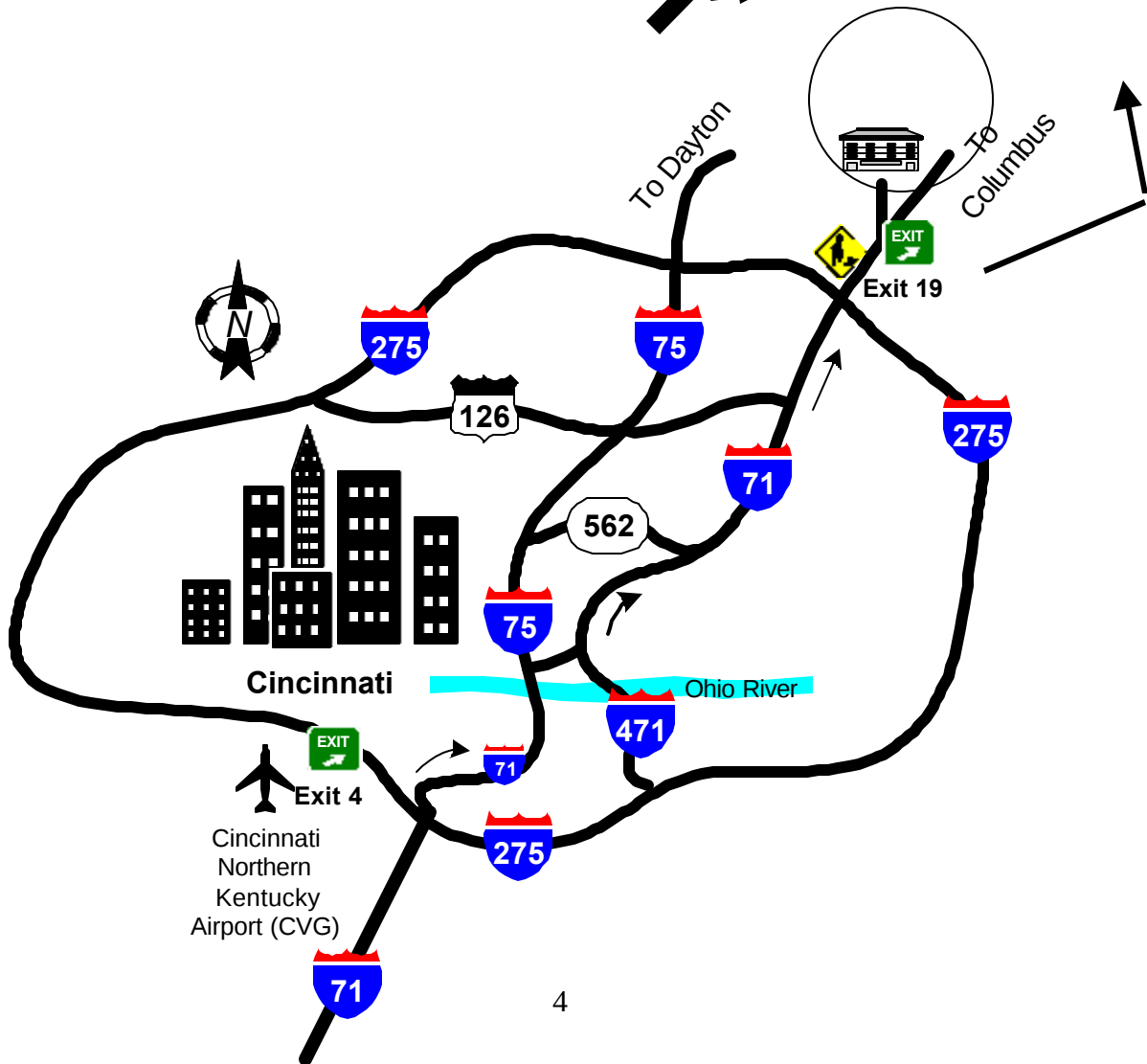
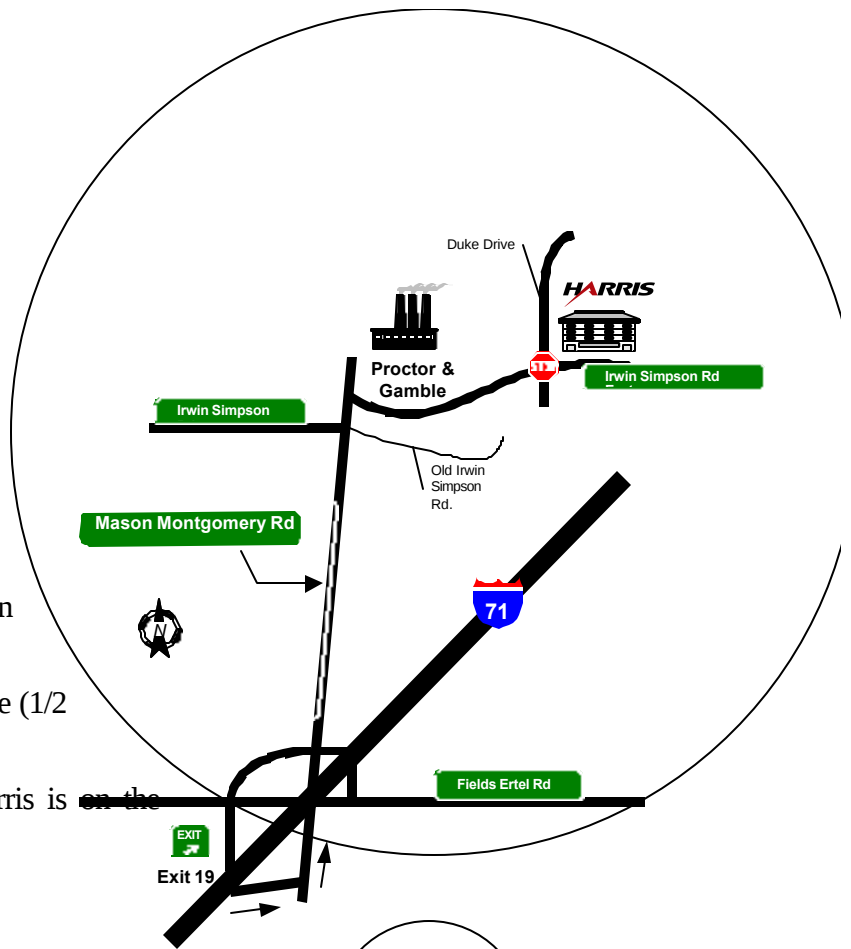
I-71 N to Fields Ertel Rd/Exit 19 (23
miles)

Left on Mason Montgomery Rd to Irwin
Simpson Rd (1 mile)

Right on Irwin Simpson Rd to Duke Drive (1/2
mile)

Left on Duke Drive (4 way Stop)...Harris is on the
right

(Mileage is approximate)



CHAIR'S MESSAGE
by Tom Grau, Section Chair

The Executive Committee of the Cincinnati Section of the IEEE met January 17, 2002, to review the past year and to plan the programs for 2002. With regard to finances, Orest Melnyk, our Treasurer, reviewed our 2001 Budget against our receipts and disbursements. The bottom line is the Cincinnati Section is in good financial shape. With regard to our meetings, our objective of presenting technologically interesting material appears to have been met due to the fact that our meeting average attendance increased. Ron Harbaugh, Past Chair, presented a report on the revision of our Bylaws. Currently, the revision is awaiting IEEE headquarters approval and when approved, will be made available through our web site.

With regard to our planning for 2002, a number of interesting programs are planned. When the details have been finalized, they will be posted at our web site and will be transmitted through the Newsletter. Please be aware of these and plan to attend.

Our Mission: To serve the membership of this Section and to support the Societies that our members belong to.

Our Vision: To enrich our member skills through program presentations of current technologies and issues.

In our January meeting, Major Devin J. Della-Rose, USAF, serving in the Air Force's Air Weather Service, presented, THE SPACE ENVIRONMENT, SPACE WEATHERSTORMS, AND EFFECTS ON TECHNOLOGY. Major Della-Rose's talk showed many breath-taking photos from outer space of the sun and other bodies in explaining sun spot activities and the eleven-year cyclic behavior. This was truly an outstanding presentation and on behalf of the Cincinnati Section of the IEEE I thank Major Della-Rose for his efforts.

ATTENTION Retired Engineers and Scientists!
Consider RESC Activities !

The **Retired Engineers and Scientists of Cincinnati - RESC** for short - invite those with **technical backgrounds** who are **retired** and would like to **share good fellowship** while **pursuing interests** in technology, community, history and nostalgia, travel, and business or industry developments.

Activities include monthly **luncheon meetings**, periodic **plant tours**, and **golf** in season. Luncheon meetings are held on the third Tuesday of each month from October through May. Visit website <http://RESC-online.org> for the "big picture" of RESC

RESERVATIONS REQUIRED FOR ALL EVENTS - Contact **Gene Anderson**, phone (513) 353-2708

LUNCHEON MEETING SCHEDULE -

Tuesday, February 19 Manned Mission To Mars

11:30 AM

Lyle Kelly & Janis Jaunberg of the Mars Society, a P&G (Information Technology) retiree and a UC chemistry doctorate candidate/science fiction author will team in an illustrated presentation to bring us facts about Mars, why and how humans might go to Mars, and discuss projects toward that goal that are in progress

Tuesday, March 19

Restoring a Frozen "My Gal Sal" B-17 Bomber

11:30 AM

Bill Beringhaus, RESC member, retired Principal Electrical Engineer, CG&E, who piloted a B-17 on 35 WW2 missions over Europe, will describe the efforts of a local team to restore a crashed B-17 after its 56 years in the icy waters of Greenland, for its use as a memorial.

Tuesday, April 16

South American Odyssey

11:30 AM

Art & Ruth Kupferle, the husband/wife team of a retired Bell System Engineer (past Pres. of RESC) and a retired Cincinnati school teacher, who have addressed RESC previously about their visits to many parts of the globe will describe the places, people, and history of the larger South American countries

Tuesday, May 21

CENTRAL

11:30 AM

88 Bells for Ohio Bicentennial (NOTE: AT QUALITY

HOTEL, NORWOOD) James Verdin, President, Verdin Bell Co. will describe how between now and 2003 his company will cast on location, by use of a unique mobile foundry in each of the 88 counties, a 230 pound bell bearing the name of the county, the casting date, the Great Seal of Ohio, and the Bicentennial logo.

PLANT TOUR SCHEDULE

Tours are limited to RESC Members and Member sponsored Guests

Tuesday, March 26 MILACRON - PLASTIC TECHNOLOGIES GROUP, Batavia, Ohio

Tuesday, April 23 MAZAK (Manufacturer of Machining Centers), Florence, Kentucky

Thursday, May 16 TOYOTA AUTO ASSEMBLY PLANT, Georgetown, Kentucky

General information about RESC and supplemental information about events
is available on website: <http://RESC-online.org>

Scanning the Past: A History of Electrical Engineering from the Past

Submitted by Dick Reiman, Historian

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Frank Conrad and Station KDKA

Seventy years ago this month, the PROCEEDINGS OF THE INSTITUTE OF RADIO ENGINEERS (IRE) included a paper by Frank Conrad on the design of radio receivers. He had recently been promoted to the position of Assistant Chief Engineer of the Westinghouse Electric and Manufacturing Company in Pittsburgh, Pennsylvania. He had worked for Westinghouse since 1890 and had been instrumental in starting the pioneering radio broadcasting station KDKA in 1920.

In his paper Conrad discussed design features of receivers suitable for operation by those "entirely unfamiliar with the techniques of radio apparatus." He recommended use of a regenerative vacuum-tube circuit because of its sensitivity and simple tuning. However, he noted that one significant defect of the regenerative receiver was the interference which it could produce in other nearby receivers due to radiation from the oscillator. He also stressed the importance of having a good antenna and a source of power which did not require frequent attention.

Conrad was born in Pittsburgh in 1874, the son of a railroad mechanic. Conrad's formal education ended when he completed the 7th grade and he went to work in the shops of the Westinghouse Company at age 16. In 1897 he joined the Westinghouse Testing Department, where he demonstrated inventive ability through patented inventions, including a watt-hour meter and an automobile electrical system. He was to receive more than 200 patents during his long career. By 1912, he became an amateur radio enthusiast and constructed a receiver to monitor Navy time signals. In 1916 he received a license to operate a radio transmitter designated as station 8XK from his home, and he was permitted to use the station to test military radio apparatus after the government suspended amateur radio operation in April 1917 because of the war. He did important work on radio equipment for the Army Signal Corps during World War I, including sets for installation in aircraft. He joined the IRE in 1917 and became a Fellow of the Institute in 1927.

Conrad resumed operation of his amateur radio station in 1919 and began to broadcast music from phonograph records on a regular basis. Reportedly he was not very fast at using Morse code, and he decided that the use of a microphone would speed up his communication with other amateurs. His music programming proved unexpectedly popular and caught the attention of Harry P. Davis, a Westinghouse vice-president, who foresaw a potential consumer market for radio receivers. Davis arranged for a transmitter designed by Conrad to be installed at the Westinghouse plant. The station was licensed as KDKA, and it broadcast, with a power of about 100 watts, election returns during the evening of November 2, 1920. The transmitter power was raised to 1000 watts in October 1921, and it was reported that the station could be heard over much of the United States and in Europe at night under favorable conditions. By then the radio broadcasting industry had achieved an astonishing rate of growth, and there were more than 500 commercial stations on the air in the United States by the end of 1922. During the 1920's Conrad turned his attention to short-wave radio and published another IRE paper in October 1924 in which he reported promising results at wavelengths down to 60 meters.

Conrad received the Morris N. Liebmann award from the IRE in 1925 and the Edison Medal from the American Institute of Electrical Engineers in 1930. He retired in 1940 and died during a trip to Florida in December 1941.

James E. Brittain

School of History, Technology, and Society Georgia Institute of Technology

Professional Development Another Alternative



Master of Science in Technology
Northern Kentucky University

(<http://www.nku.edu/~mst>)

Contact Dr. James Gray
(859) 572-6352
jgray@nku.edu

ELECTRICAL WORLD MAGAZINE

125th ANNIVERSARY

by Bob Morrison, Editor

In 1999, Electrical World Magazine celebrated their 125th anniversary as one of the premier publications for the Electric Power Industry. They presented a history of significant People, Companies, Industry Changes and Innovative Technologies which have served to define the current status of the Electric Power Industry. In the next few months, their article will be reprinted in this newsletter (*permission granted by McGraw-Hill Publishing Co.*)

COMPANIES

Throughout the history of the power industry, companies and corporations have fostered amazing technological creations while revolutionizing society. Here are nine companies that have helped shape the industry, and to some degree, the world.

General Electric Co Schenectady, NY

General Electric's vast influence on the electric power business can be traced to the industry's infancy. From the early days, GE held the monopoly on incandescent lamp systems that stemmed from Thomas Edison's original patents. Under the direction of Charles Proteus Steinmetz, the company expanded into other industries -- including electric appliances -- yet remained a power industry mainstay.

In 1919, GE developed the turbine-driven supercharger, establishing its long connection with the aerospace industry. Among the many inventions from GE are the gas-filled incandescent lamp and the first direct-drive, 3600-rpm gas turbine.



Today, GE leads the world in installed gas-turbine systems for power-generation applications.

AES Corp Arlington, Va

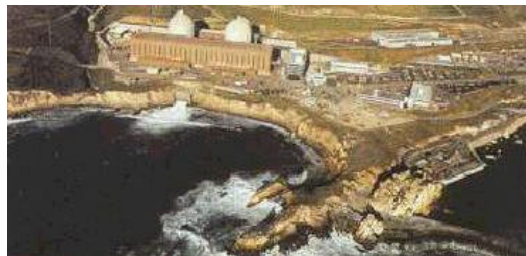
A mere youngster in the scheme of the power industry, 19-year-old AES started as a small, regional, coal-fuel-based generator, and systematically grew into the world's largest private power company in terms of net equity.

Active in 22 countries, AES owns 49 operating plants and companies with generation totaling 26,438 MW, and has interests in 11 electric power companies. Although AES's 1998 revenues exceeded \$ 2-billion, financial results are only one measure of success. The corporation's pace-setting decentralized management style leaves just 50 of their more than 11,000 direct employees at headquarters -- a move indicative of the company's commitment to push major decision-making to the teams of employees at the project level. Shattering traditional

corporate structure protocol, cofounders Roger Sant and Dennis Bakke say they work hard to make AES a fun place to work.

Pacific Gas & Electric Co San Francisco, Calif

Formed by mergers of over 500 companies, PG&E and its history are intertwined with early sales of electricity to the public. In 1879, three years before Thomas Edison's Pearl Street station went live, the California Electric Co - - an ancestor of PG&E -- built what is believed to be the world's first central station, which initially lit strings of arc lamps along San Francisco streets. Today, as one of the world's largest utilities, PG&E is recognized for its technical deftness in generation and transmission -- and being perhaps the first utility to tap the power of the World Wide Web for significant gain. In the 1980s, Dale Fong -- a visionary computer programmer -- along with Microsoft Corp, developed PG&E's proprietary supervisory control and data acquisition system using Web-based protocols to link all the utility's substations.



Niagara Falls Power Niagara Falls, NY

In the late 1800s, small, hydroelectric generating stations were developed on the banks of the Niagara River. Because long-distance transmission capabilities were unavailable, the power remained local in nature. Determined to find a way to capture long-distance customers, several small companies merged in 1889 to form the Niagara Falls Power Co -- and offered a \$ 100,000 prize to anyone who could design a viable transmission system.

The solution came from the team of George Westinghouse and Nikola Tesla, who developed the alternating current system that brought electricity to Buffalo, NY -- 26 miles at 10,000 V. By doing so, they assured the long-term success of alternating current. Though no longer in existence, the Niagara Falls Power Co set the standard for the future of transmission networks.



Help the UC Robot Team win the IGRC in 2002!

Dear UC Robotics Engineering Supporter:

The UC Robot Team hopes to compete in the International Collegiate Ground Robotics Competition in July 2002 at Disney World near Orlando, FL. To compete, the students teams must design and construct a mobile robot that will autonomously navigate an obstacle course using state of the art machine vision, sonar, laser scanners, electronics, and artificial intelligence computing. The sponsors believe that the development of future engineers, scientists, and leaders in these disciplines is crucial to continued global industrial competitiveness. The competition is of the highest caliber and has included Virginia Tech, Ohio State University, the University of Michigan, and international teams from Japan and Canada.

Our student team members and faculty advisor meet regularly each week to design, build, and test the complex Bearcat robotic vehicle. We are adding more sensors such as a GPS and refining the prototype, and need funding for several remaining critical components. We are seeking individual or corporate sponsors to help the UC Robot Team in the competition. In return for sponsorship we will:

- 1) Provide a Certificate of Sponsorship, which signifies the level of sponsorship:
 - \$25 Bronze Level
 - \$100 Gold Level
 - \$50 Silver Level
 - \$200 Platinum Level
 - \$250 or more Iridium Level
- 2) Display your company logo on the Bearcat robot vehicle, team T-shirts, and event booth
- 3) Display your company logo on our Web page at: <http://www.robotics.uc.edu>

Let you be a Monday Night Quarterback on the Team - you can share the technology in our design by viewing the world wide web site database so you can follow development throughout the design competition.

Donations may be made to the UC Center for Robotics at the address below. These will be reported to UC Foundation and processed as tax exempt gifts. We have a specific need for an Differential Global Positioning System and vision tracker. Other donations or advice is also welcome. Please feel free to call Ernie Hall at (513) 382-3909 or 556-2730 to discuss this opportunity.

More info on the contest may be found at: http://www.secs.oakland.edu/SECS_prof_orgs/PROF_AUVSI/

And at our web site at: <http://www.robotics.uc.edu>

Sincerely,

All members of the UC robotics team.

Ernest L. Hall

Faculty Advisor to the Robot Team

Email: Ernie.Hall@uc.edu

Mailing Address:

UC Robot Team, Center for Robotics

University of Cincinnati

American Chemical Society Meeting on "Biochemistry Of Aging"

The American Chemical Society will be having a meeting on February 21, 2002 on the Biochemistry of Aging. Details of the meeting are as follows:

Meeting: 6:15 P.M., Otto M. Budig Theater, University Center, Northern Kentucky University Keynote Speaker: Dr. Eugenia Wang, University of Louisville Medical School "Biochemistry of Aging". Dr. Wang promises an informative talk in "not too technical" terms, so we all should be able to understand the subject.

Banquet: 7:30 P.M., University Center Ballroom - Sliced Top Round of Beef, Vegetarian Pasta Primavera, Chicken Almondine, Oven Browned Potatoes, Savory Green Beans, Tossed Salad, Waldorf Salad, Apple Crisp, Black Forest Cake, Rolls, Tea and Coffee

Cost: \$14, Payable at the door. Retirees, full time students, K-12 teachers, and first time visitors are 1/2 price.

Reservations: Send reservations by e-mail to Robbin Rolfes (rolfes.rl@pg.com), or for those internet challenged, telephone 513-385-8363. Include your name, professional affiliation, if you're a member of another technical society, and if you belong to one of the 1/2 price categories. Please use e-mail for reservations whenever possible. Please have reservations in by noon, Monday, February 18.

Directions: From Downtown, or Cincinnati and northern Kentucky suburbs, take I-71 or I-75 or I-275 to I-471 South. Approximately six miles from the Ohio River, I-471 ends as it merges with U.S. 27. At the second stop light turn right onto Nunn Drive, the entrance to Northern Kentucky University. From Nunn Drive turn left at the first traffic light. Go past the parking garage and turn right at the next stop sign. The University Center is the second building on the right. Guests may park in any unreserved parking space in any lot. Guest must have a handicapped parking sticker in order to park in a space for the handicapped.

Synopsis of the talk: The maximum human lifespan recorded in recent time is 122 years, that of Mme. Calmette, who died a few years ago. Since the middle of the last century, the average human lifespan has increased from 50 to 78 for women, and 77 for men, in developed countries. This extension of lifespan of close to 30 years is largely attributed to eradicating large-scale epidemics of infectious diseases, increased nutrition and sanitation, and improvements in lifestyle. With this trend of increasing life span, the question then arises: can we follow the same path of improvement to gain the remaining 40 years to bring the average to the maximum lifespan? The answer may lie in the realization that we are dealing now with diseases of the elderly, which are polygenic in nature and involve both genetic and environmental factors. Thus, extending this last scope of 4 decades of lifespan requires clear information as to what genes and environmental factors are essential to lifespan determination. To approach this question, we suggest that certain longevity-assurance genes are functionally instrumental to the ability of centenarians to live to the extreme end of the maximal human lifespan. Centenarians, like the rest of us, are subject to common environmental risks, but they are able to combat these insults and survive. The presentation will show how integrating information from human genetics, epidemiology, DNA chip technology and bioinformatic engineering provides a head-start in our quest for human longevity-associated genes. Identifying these genes is a first step towards designing interventions to reduce age-dependent debility and disease, and maximizing functional human life span for the ultimate achievement of healthy graying with dignity.

About the Speaker: EUGENIA WANG is a Professor in the Department of Biochemistry and Molecular Biology of the School of Medicine at the University of Louisville, Kentucky. She directs a laboratory of some 20 staff, supported by

grants from the National Institute on Aging, NASA, and DARPA (part of the Department of Defense). Prior to her present post, she was professor of Medicine, Anatomy and Cell Biology, and Neurology and Neurosurgery at McGill University in Montréal, Québec, Canada, and also Director of the Bloomfield Center for Research in Aging at the Lady Davis Institute for Medical Research. She teaches undergraduate and graduate students in areas such as the mechanisms controlling the aging process, including determination of human longevity, studying centenarian populations. Dr. Wang received her Bachelor of Science degree from the National Taiwan University, her M.Sc. from Northern Michigan University, and her Ph.D. from Case Western Reserve University. Afterwards, she did postdoctoral training and an assistant professorship at the Rockefeller University, before moving to McGill University in 1987. Since 1981, Dr. Wang's research has involved investigating the molecular mechanisms controlling the process of aging, at both cellular and organismic levels. Her recent work involves investigating gene-directed programs regulating the ontogeny of age-dependent diseases, and how genetic action in individual cells controls human longevity, integrating biochip technology, mathematical genomics, and pattern recognition theory to identify genetic and epigenetic factors as life-span determinants.

IEEE NEWS

CONGRESSIONAL VISITS DAY 2002 IS MARCH 5-6

The 7th Annual Science, Engineering and Technology Congressional Visits Day (CVD) is March 5-6, 2002, in Washington, D.C. The IEEE's U.S. members are invited to join hundreds of other engineers and scientists in this two-day annual event that brings scientists, engineers, researchers, educators, and technology executives to Washington to raise visibility and support for science, engineering and technology issues. CVD's objective is to stress the long-term importance of science and technology to the Nation through meetings with Congressional decision-makers. IEEE-USA has participated in CVD for each of the past six years, sending a contingent of members to the Hill to meet with members of Congress and their staff. To join the team, submit the online registration form at: <http://www.ieeeusa.org/forum/cvd/>

IEEE-USA PRESIDENT'S COLUMN: LET'S MAKE A DIFFERENCE DURING E-WEEK

LeEarl Bryant, 2002 IEEE-USA President, challenges U.S. IEEE members to help bring National Engineers Week (E-Week) educational programs to life in local communities. E-Week is February 17-23. For more, visit: <http://www.ieeeusa.org/newspubs/presidentscolumn/bryantjan02.html>

"ZOOM INTO ENGINEERING" TRAINING

E-Week 2002 organizers have partnered with WGBH, the producers of the popular PBS children's television series ZOOM, to launch ZOOM INTO ENGINEERING, an exciting new outreach program that teaches 6- to 12-year-olds how science and engineering principles apply to the real world.

ZOOM INTO ENGINEERING provides engineer volunteers with the tools and training they need to work effectively with young children. The American Society of Civil Engineers (ASCE), co-chair of E-Week 2002, is hosting ZOOM "train-the-trainer" workshops for engineer volunteers at its four upcoming zonal meetings, and IEEE members are cordially invited to attend. Train-the-trainer workshops provide appropriate materials and training to prepare engineers to effectively bring the ZOOM INTO ENGINEERING outreach program to the local community via local schools and public events.

Training will be from 10:00 a.m. to 2:00 p.m. in all locations, with the exception of Orlando, where training will be held 11:00 a.m. - 2:30 p.m.

- Friday, Jan. 18, Hartford, Conn. - The Hastings Hotel
- Friday, Feb. 1, Kansas City, Mo. - The Fairmont Kansas City at the Plaza
- Friday, Feb. 8, Orlando, Fla. - Adam's Mark Hotel
- Friday, March 1, Reno, Nev. - John Ascuaga's Nugget

For more information, visit: <http://www.ieeeusa.org/eweek/training.html> or contact Kelly Cunningham at klcpr@bellatlantic.net.

OTHER E-WEEK EVENTS AND ACTIVITIES

An array of exciting events and activities are planned for National Engineers Week 2002 (E-Week), February 17-23, many of which are open to the public. Participation in local and national events is just one way of celebrating the countless accomplishments of engineers, and IEEE-USA strongly encourages U.S. IEEE members to get involved. Following are just a few of the major activities planned for E-Week 2002:

- National Engineers Week Family Day

National Engineers Week Family Day is a free, fun-filled day for the entire family on Saturday, February 16, from 10:00 a.m. to 4:00 p.m., at the National Building Museum in Washington, D.C. Various societies will provide hands-on activities and displays, and DuPont, as the principal sponsor of Jeff Gordon's NASCAR Winston Cup racecar, is expected to have one of the four-time point champion's cars on site. Stay tuned for more details.

- Future City Competition Celebrates 10th Anniversary

The National Engineers Week Future City Competition moves into its second decade in 2002. Started in 1992 by E-Week co-chairs, IEEE-USA and Chevron, the program has grown far beyond early expectations now reaching 30,000 middle school students across the country. Future City Competition is a hands-on educational program designed to help seventh- and eighth-grade students discover and develop interests in math, science and engineering. This year, the first place winners from each of the 30 regional competitions will be sent to Washington, D.C. to participate in the National Finals during E-Week. For more information, visit: <http://www.futurecity.org>

- Introduce A Girl To Engineering Day

"Introduce a Girl to Engineering Day" premiered during E-Week 2001 and was a tremendous success, with 90 organizations participating. The E-Week Committee 2002 is again challenging the engineering community as a whole to build on the success of last year's efforts by introducing girls to engineering through individual outreach, in an overall effort to reach one million girls. For more information, visit: <http://www.eweek.org/2002/News/Eweek/girlsday.shtml>

- E-Week Kits Now Available To Volunteers

Volunteers interested in organizing activities for National Engineers Week can now request a free E-Week kit through IEEE-USA or the E-Week Website. The kit offers "50 ways to participate," a planning calendar, an outline of talking points, tips for working with students, and much more. IEEE-USA has a limited supply of kits. To request a kit, contact Rita Hamilton at r.m.hamilton@ieee.org, or visit <https://shop.eweek.org/eweek/> and click on 'Promotional Materials.'

- Get Involved Locally!

If you haven't already done so, be sure to check with your local IEEE section to see if there are E-Week activities planned in your area. A listing of IEEE region, council and section Web sites can be found at: <http://www.ewh.ieee.org/sections.html>. Or visit the E-Week site (<http://www.eweek.org>) for information on events in your area.

IEEE-USA PATENT RIGHTS BRIEF DISCUSSED PROMINENTLY IN U.S. SUPREME COURT

WASHINGTON (January 10, 2002) - An IEEE-USA amicus curiae brief on patent rights received prominent attention in oral arguments before the U.S. Supreme Court on Tuesday in the Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., LTD patent case.

A copy of the brief and other relevant resources are available at <http://www.ieeeusa.org/forum/POLICY/2001/01aug31festo.html>.

IEEE-USA's brief and the U.S. Solicitor General's were the only two of the more than 20 friend-of-the-court briefs discussed openly in court. Justice Sandra Day O'Connor asked both sides to compare and contrast their position with that of IEEE-USA's, while other justices quizzed the parties on IEEE-USA's proposed "foreseeable bar" standard.

"IEEE-USA was happy to provide guidance to the court," said Lee Hollaar, chair of the IEEE-USA Intellectual Property Committee. "We'd like to be there on future issues, where we hope we can contribute to the debate."

In Festo, the Court is considering to what extent the holder of an amended patent is barred from asserting patent rights against another inventor whose design is substantially the same as the patented invention. As an alternative to the "flexible bar" and "absolute bar" standards advocated by the opposing sides in Festo, IEEE-USA is asking the Court to consider a "foreseeable bar," where holders of an amended patent give up protection for only those things that were foreseeable by persons familiar with the associated technology.

Carlton Fields, P.A. of Tampa (www.carltonfields.com) prepared the brief pro bono. IEEE member Andrew Greenberg served as counsel of record and headed a team of 10 lawyers and legal assistants.

Text of the one-hour oral arguments will be available in about two weeks at http://www.supremecourtus.gov/oral_arguments/argument_transcripts.html. A decision is expected before summer.

IEEE COMSOC OFFERS TWO-DVD SET WITH 50 YEARS OF COMMUNICATIONS PAPERS FOR ITS 50TH ANNIVERSARY

Digital Archive Holds 28,000+ Peer-Reviewed Papers by 23,000+ Authors

NEW YORK, NY, Jan. 18, 2002 – The IEEE Communications Society is commemorating its 50th anniversary in 2002 by issuing a two-DVD digital archive containing all papers published in six of its magazines and journals during the past half century and from its major conferences since 1999. The set, "Communications Engineering Technology: A Comprehensive Collection of Papers 1953-2001," holds more than 28,000 peer-reviewed papers from more than 23,000 authors.

Copies of the archive go on sale in March at \$129 members and \$999 for non-members. In addition, anyone who attends an IEEE ComSoc conference in 2002, such as ICC or GLOBECOM, will receive a copy of the DVD set with their full-paid registration.

"Our publications were a major way researchers shared their work as the communications industry exploded in depth and breadth during the past five decades," says Cecilia Desmond, IEEE ComSoc president. "We assembled this archive both as a historical record of how the field evolved and as a working resource to give researchers and others easy access to essential source materials."

The archive has multiple indexes, a search capability, author profiles, and linked references and citations. For a preview of the range of articles included in it, visit: <http://www.comsoc.org/livepubs/dvdweb/index.html>. The archive contains PDF versions of papers from the following ComSoc periodicals:

- IEEE Communications Letters from 1997 to 2001
- IEEE Communications Magazine from 1973 to 2001
- IEEE Journal on Selected Areas in Communications from 1983 to 2001
- IEEE Network from 1996 to 2001
- IEEE Personal Communications (now called IEEE Wireless Communications) from 1996 to 2001.
- IEEE Transactions on Communications from 1953 to 2001

Conference papers included in the set are drawn from the following seven ComSoc meeting held between 1999 and 2001:

- Conference on Computer Communications (INFOCOM) from 1999 to 2001
- IEEE Global Telecommunications Conference (GLOBECOM) in 2000 and 2001
- IEEE International Conference on Communications (ICC) in 2000 and 2001
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